

Figure 1 illustrates four types of polymerization mechanisms:

- A: Anionic polymerization.** A monomer with a leaving group X and an adjacent oxygen atom (O) is shown. The reaction arrow points to a polymer chain where the oxygen atoms are part of the backbone, and the leaving groups X are at the chain ends.
- B: Cationic polymerization.** A monomer with a leaving group X and an adjacent oxygen atom (O) is shown. The reaction arrow points to a polymer chain where the oxygen atoms are part of the backbone, and the leaving groups X are at the chain ends.
- C: Coordination polymerization.** A monomer with a leaving group X and an adjacent oxygen atom (O) is shown. The reaction arrow points to a polymer chain where the oxygen atoms are part of the backbone, and the leaving groups X are at the chain ends.
- D: Group transfer polymerization.** A monomer with a leaving group X and an adjacent oxygen atom (O) is shown. The reaction arrow points to a polymer chain where the oxygen atoms are part of the backbone, and the leaving groups X are at the chain ends.

FIGURE 1: PRIOR ART

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Mono-substituted Radiation Sensitive Lipids

Sorbyl, Acryloyl, Methacryloyl, Vinyl ester, Dienoyl

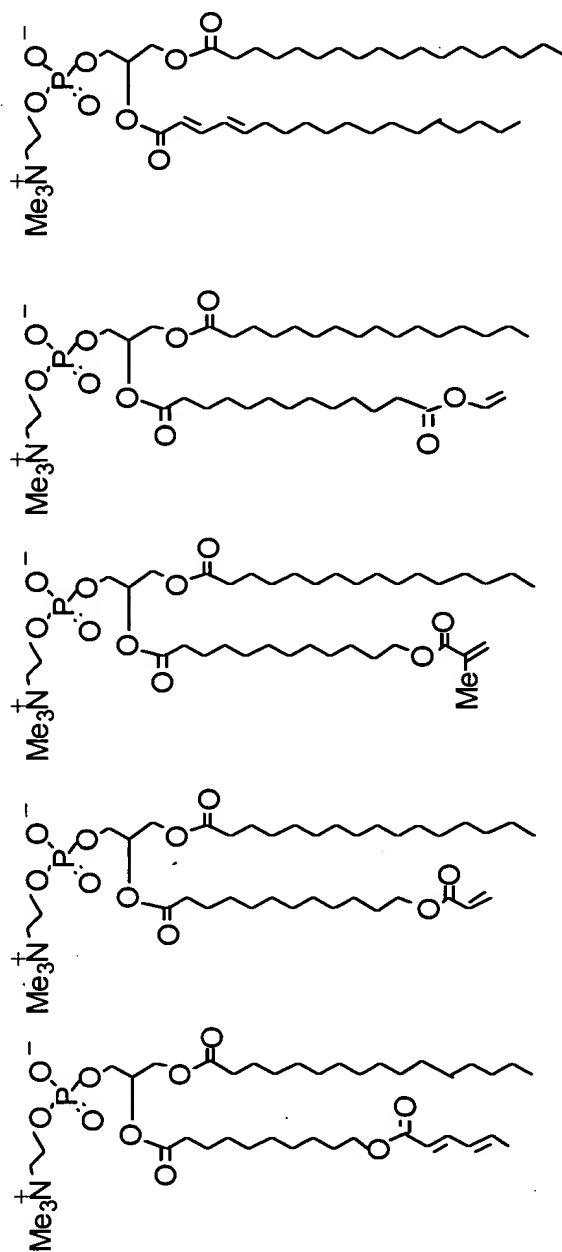


FIGURE 3 Bis-substituted Radiation Sensitive Lipids

Sorbyl, Acryloyl, Methacryloyl, Vinyl ester, Dienoyl

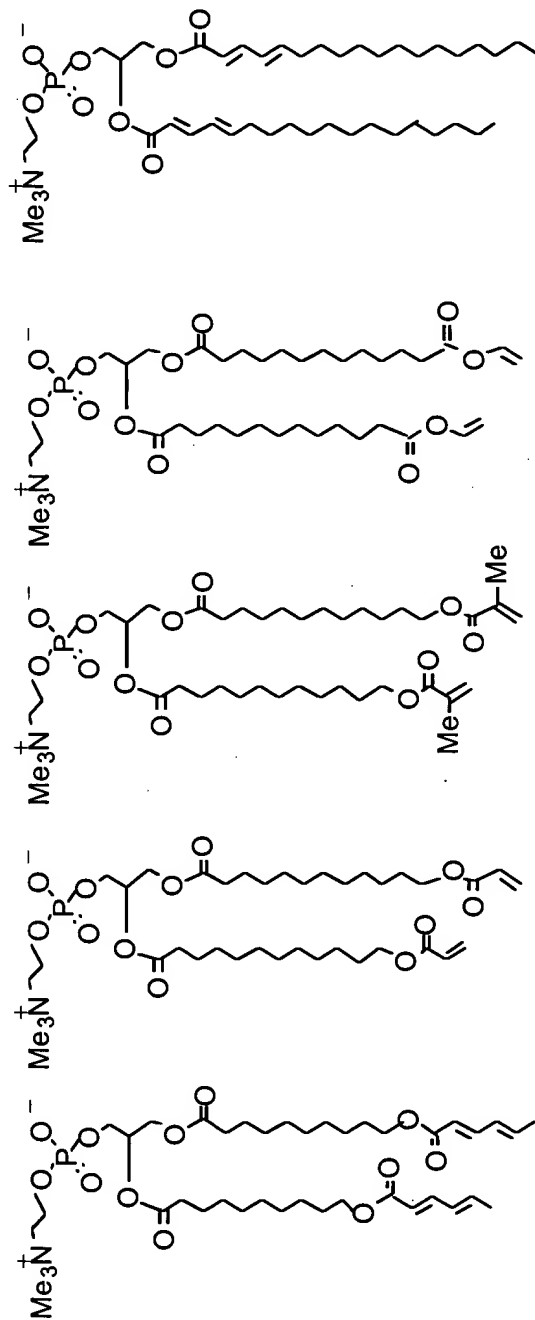
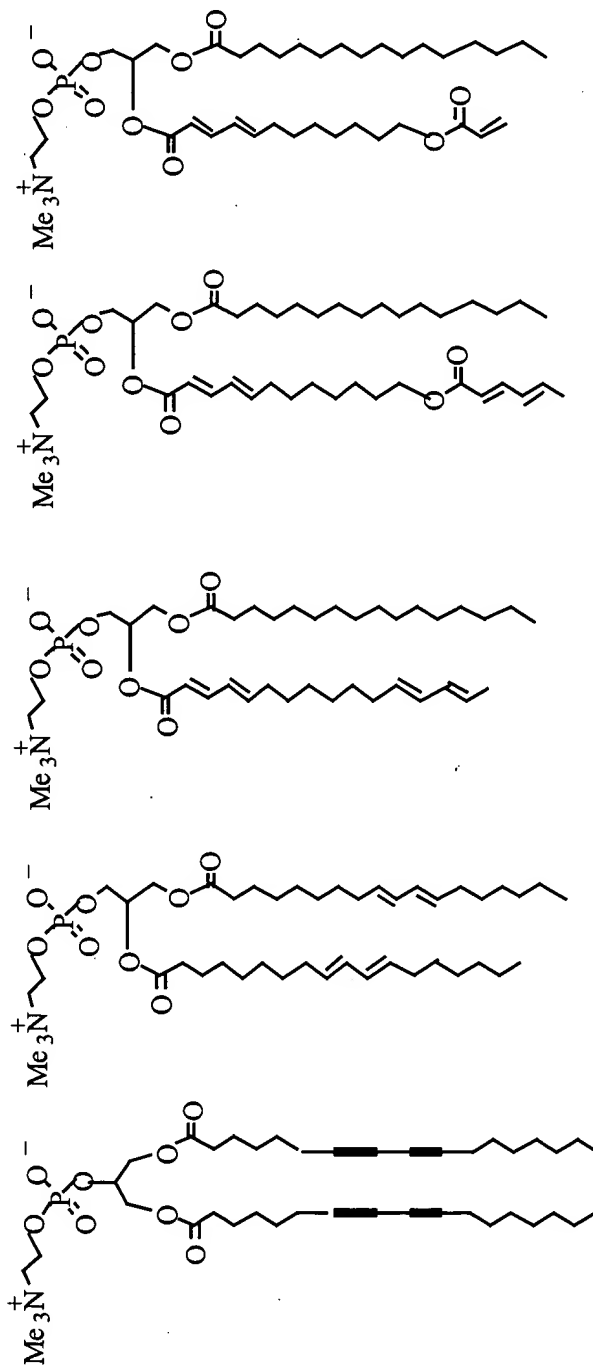
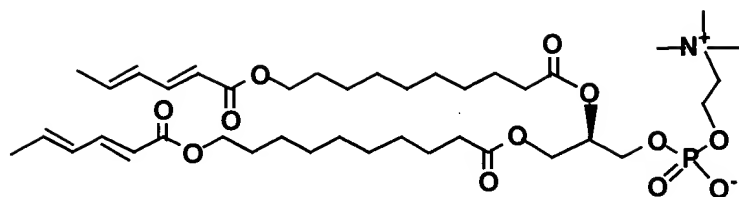


FIGURE 4

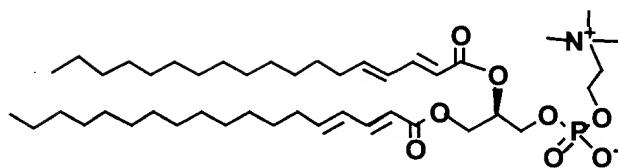
Additional Radiation Sensitive Lipids

Diacetylenyl, Dienyl, Dienoyl dienyl, Dienoyl sorbyl, Dienoyl acryloyl

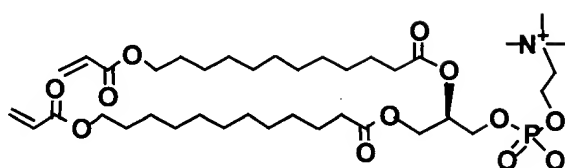




bis-SorbPC (1)



bis-DenPC (2)



bis-AcrylPC (3)

**FIGURE 5: Selected Polymerizable
Phosphatidylcholines used in Radiation
Sensitive Liposomes**